



Atty. Dkt. No. 079012-0102

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Vladimir BARANOV et al.
Title: ELEMENTAL ANALYSIS OF TAGGED BIOLOGICALLY ACTIVE MATERIALS
Appl. No.: 10/614,115
Filing Date: 7/3/2003
Examiner: Lisa V. Cook
Art Unit: 1641
Confirmation Number: 7685

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of a document known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

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TIMING OF THE DISCLOSURE

The listed document is being submitted in compliance with 37 CFR §1.97(c), before the mailing date of either a final action under 37 CFR §1.113, a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application.

RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

FEE

A credit card payment form in the amount of \$180.00 is enclosed in accordance with 37 CFR §1.17(p) to cover the fee associated with an information disclosure statement under 37 CFR §1.97(c) in the amount of \$180.00.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Date

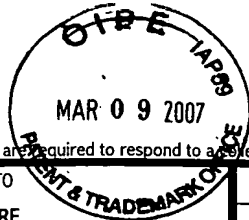
9 March 2007

By

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Substitute for form 1449/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Date Submitted: March 9, 2007

(use as many sheets as necessary)

Complete if Known

Application Number	10/614,115
Filing Date	7/3/2003
First Named Inventor	Vladimir BARANOV
Art Unit	1641
Examiner Name	Lisa V. Cook
Attorney Docket Number	079012-0102

Sheet 1 of 3

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			

UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Application Document	Filing Date of Cited Document MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁵
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

NON PATENT LITERATURE DOCUMENTS

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	E1	Gold, Larry, et al. (1995). "Diversity of Oligonucleotide Functions". <i>Annual Review of Biochemistry</i> Vol. 64, p. 763-97.	
	E2	Ralf KRUGER et al., "Characterization of a gadolinium-tagged modular contrast agent by element and molecular mass spectrometry", <i>J. Anal. At. Spectrom.</i> , 2004, 19, pp. 852-857.	
	E3	Chao ZHANG et al., "ICP-MS-based competitive immunoassay for the determination of total thyroxine in human serum", <i>J. Anal. At. Spectrom.</i> , 2002, 17, pp. 1304-1307.	
	E4	Sichun ZHANG et al., "Simultaneous Determination of α -Fetoprotein and Free β -Human Chorionic Gonadotropin by Element-Tagged Immunoassay with Detection by Inductively Coupled Plasma Mass Spectrometry", <i>Clinical Chemistry</i> , 50:7, (2004), 1214-1221.	

Examiner
SignatureDate
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			Attorney Docket Number	079012-0102	
Sheet	2	of	3		

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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶	
	E5	Joanna SZPUNAR, "Advances in analytical methodology for bioinorganic speciation analysis: metallomics, metalloproteomics, and heteroatom-tagged proteomics and metabolomics", Analyst, 2005, 130, 442-465.		
	E6	Feng-Bo WU et al., "Sensitive time-resolved fluoroimmunoassay for simultaneous detection of serum thyroid stimulating hormone and total thyroxine with Eu and Sm as labels", Analytical Biochemistry, 314 (2003), 87-96.		
	E7	Renli MA et al., "Speciation of protein-bound trace elements by gel electrophoresis and atomic spectrometry", Electrophoresis 2004, 25, 2469-2477.		
	E8	Norbert JAKUBOWSKI et al., "Metallobiomolecules. The basis of life, the challenge of atomic spectroscopy", J. Anal. At. Spectrom., 2004, 19, 1-4.		
	E9	An-Ping DENG et al., "Reaction cell inductively coupled plasma mass spectrometry-based immunoassay using ferrocene tethered hydroxysuccinimide ester as label for the determination of 2,4-dichlorophenoxyacetic acid", ANALYTICAL CHIMICA ACTA, 472, 2002, pp. 55-61.		
	E10	Andrew TAYLOR et al., "Atomic spectrometry update. Clinical and biological materials, foods and beverages", J. Anal. At. Spectrom., 2003, 18, PP. 385-427.		
	E11	Mathias WIND et al., "Element and molecular mass spectrometry – an emerging analytical dream team in the life sciences", J. Anal. At. Spectrom., 2004, 19, 20-25.		
	E12	J. Sabine BECKER et al., "Determination of phosphorus in small amounts of protein samples by ICP-MS", Anal. Bioanal Chem 2003, 375:561-566.		
	E13	J. Sabine BECKER et al., "Determination of phosphorus and metals in human brain proteins after isolation by gel electrophoresis by laser ablation inductively coupled plasma source mass spectrometry", J. Anal. At. Spectrom., 2004, 19; 145-152.		
	E14	J. Sabine BECKER et al., "Structural identification and quantification of protein phosphorylations after gel electrophoretic separation using Fourier transform ion cyclotron resonance mass spectrometry and laser ablation inductively coupled plasma mass spectrometry", International Journal of Mass Spectrometry, 228 (2003) 985-997.		
	E15	Alredo SANZ-MEDEL et al., "Trace element speciation by ICP-MS in large biomolecules and its potential for proteomics", Anal. Bioanal Chem (2003) 377:236-247.		
	E16	Vladimir I. BARANOV et al., "The potential for element analysis in biotechnology", J. Anal. At. Spectrom. 2002, 17, 1148-1152.		
	E17	Zoe A. QUINN et al., "Simultaneous determination of proteins using an element-tagged immunoassay coupled with ICP-MS detection", JAAS, 2002, 17, 892-896.		
	E18	Vladimir I. BARANOV et al., "A Sensitive and Quantitative Element-Tagged Immunoassay with ICPMS Detection", Anal. Chem. 2002, 74, 1629-1636.		

Examiner Signature		Date Considered	
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	E19	VI BARANOV et al., "ICP-MS as an Elemental Detector In Immunoassays, Speciation Without Chromatography", European Winter Conference on Plasma Spectrochemistry, Hafjell, Norway, Winter 2001, Book of Abstracts, pp. 85.	
	E20	Paul K. HORAN et al., "Quantitative Single Cell Analysis and Sorting", SCIENCE vol. 198, October 14, 1977, pp. 149—157.	
	E21	Earl FRIEDMAN et al., "METHODS FOR LABELING THYROXINE WITH RADIOACTIVE IODINE", SCIENCE, April 2, 1948, Vol. 107, pp. 353-354.	
	E22	Robert S. HOUK et al., "Inductively Coupled Argon Plasma as an Ion Source for Mass Spectrometric Determination of Trace Elements", Anal. Chem. 1980, 52, 2283-2289.	

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